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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,725	12/11/2003	Chulho Kim	POU920030208US1	8581
59401 7590 01/07/2011 CANTOR COLBURN LLP - IBM AUSTIN 20 Church Street 22nd Floor Hartford, CT 06103				
EXAMINER				
ENGLAND, DAVID E				
ART UNIT		PAPER NUMBER		
2443				
NOTIFICATION DATE		DELIVERY MODE		
01/07/2011		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

Office Action Summary

Application No.

10/733,725

Applicant(s)

KIM ET AL.

Examiner

DAVID E. ENGLAND

Art Unit

2443

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10 and 12 - 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10 and 12 - 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 10 and 12 – 19 are presented for Examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10, 12 – 15 and 17 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connor 6868466 in view of Connor et al. 6993613, hereinafter Connor613.
4. As per claims 10 and 19, as closely interpreted by the Examiner, Connor teaches a method for increasing bandwidth in an interrupt mode processing protocol comprising:
 5. creating a state variable configured to track received messages, (e.g., col. 1, line 52 – col. 2, line 27);
 6. incrementing said state variable only if said received message exhibits multiple packets, (e.g., col. 4, line 5 – col. 5 et seq.);
 7. decrementing said state variable if when said received message exhibits multiple packets and completes, (e.g., col. 4, line 5 – col. 5 et seq.); and
 8. generating an interrupt, with a communications adapter running in an interrupt mode, said communications adapter placing data from received message in a receive buffer, (e.g., col. 4, line 5 – col. 5 et seq.), but does not specifically teach exiting the interrupt mode when: there are no

more packets in said receive buffer. Connor613 teaches creating a state variable configured to track received messages, (e.g., col. 7, lines 27 – 61 & col. 8, line 30 – col. 9, line 67);

9. generating an interrupt, with a communications adapter running in an interrupt mode, said communications adapter placing data from received message in a receive buffer, (e.g., col. 7, lines 27 – 61 & col. 8, line 30 – col. 9, line 67); and

10. exiting the interrupt mode when: there are no more packets in said receive buffer, (e.g., Abstract & col. 7, lines 27 – 61 & col. 8, line 30 – col. 9, line 67).

11. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Connor613 with Connor because if one does not exit an interrupt when there are no more packets left to process, in a packet processing system, the system will be idle and waste its processing capability since it would be stuck in an interrupt mode.

12. As per claim 12, as closely interpreted by the Examiner, Connor teaches said selected interval is 100 milliseconds, (e.g., col. 1, lines 52 – 67, timer is set and therefore it is up to the user to set the time to what ever they seem fit.).

13. As per claim 13, as closely interpreted by the Examiner, Connor teaches said state variable tracks a number of packets in said received message exhibiting multiple packets, (e.g., col. 7, lines 27 – 61 & col. 8, line 30 – col. 9, line 67). Connor613 also teaches this limitation, see cited sections with regard to 613.

14. As per claim 14, as closely interpreted by the Examiner, Connor does not specifically teach said received messages exhibiting a single packet are ignored with respect to said state variable. Connor613 teaches said received messages exhibiting a single packet are ignored with respect to said state variable, (e.g., col. 9, lines 54 et seq.). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Connor613 with Connor because if a user can set the amount of packets that would trigger a needed interrupt then one can control the amount of interrupts that occur in a system, i.e., if every packet caused an interrupt and system could interrupts in a queue.

15. As per claim 15, as closely interpreted by the Examiner, Connor teaches said state variable is created in said recipient, (e.g., col. 7, lines 27 – 61 & col. 8, line 30 – col. 9, line 67).

16. As per claim 17, as closely interpreted by the Examiner, Connor teaches said state variable is includes at least one of a function and one or more parameters, (e.g., col. 7, lines 27 – 61 & col. 8, line 30 – col. 9, line 67).

17. As per claim 18, as closely interpreted by the Examiner, Connor teaches said parameters include at least one of a state variable name, a sender, and a message, (e.g., col. 7, lines 27 – 61 & col. 8, line 30 – col. 9, line 67).

18. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Connor and Connor613, in further view of Killian 6473426.

19. As per claim 16, as closely interpreted by the Examiner, Connor and Connor613 do not specifically teach said state variable is namespaced based on a selected sender of a message. Killian teaches said state variable is namespaced based on a selected sender of a message, (e.g., col. 5, line 14 – col. 6, line 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Killian with the combine inventions of Connor and Connor613 since, each packet network has a namespace, a set of addresses are recognizes as sources for or destinations for packets. If a packet network receives a packet whose source or destination address is not part of the namespace of the network, the message is not forwarded. Therefore adding a level of security and blocking unrecognized nodes and/or users. Another reason for utilizing namespaces is one can designate a specific processor or interrupt procedure to a specific namespace when it send packets. Therefore, pre-allocating resources to save time on processing.

Response to Arguments

20. Applicant's arguments filed 07/20/2010 have been fully considered but they are not persuasive.

21. In the Remarks, Applicant argues in substance that the prior art does not teach the claimed invention.

22. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

23. **Applicant is advised to review claim 19 for it may incur a 101 rejection for possibly being interpreted as a signal bearing medium, i.e., the claim does not state a non-transitory computer storage medium.**

24. Applicant is invited to contact the Examiner for another interview to further prosecution and discuss claim interpretations, how the art applies and possible ways to amend to overcome prior art and possible 101 rejection.

Conclusion

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. ENGLAND whose telephone number is (571)272-3912. The examiner can normally be reached on Mon-Thur, 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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